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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/683,921

03/01/2002

Timothy P. Goggins

NG-31336

3798

22202

7590

03/11/2005

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EXAMINER

KOYAMA, KUMIKO C

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/683,921	GOGGINS, TIMOTHY P.	
	Examiner	Art Unit	
	Kumiko C. Koyama	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgement is made of receipt of Amendment filed on December 22, 2004.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 7, 17, 22, 23 and 38-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Clay (US 4,869,946).

Re claim 1, 5, 7, 22, 23, 38 and 41: Clay teaches a lenticular layer 10 including a plurality of lenticules 11 on the front surface of the layer 10 as shown in Fig. 1. The plurality of lenticules are oriented along an axis represented by axis 14a in Fig. 2 because the lenticules are facing upwards. Fig. 1 and Fig. 2 shows that the back surface, which is opposite the front surface (the side where the lenticules are located), is attached to layer 12 that contains an image (col 2, lines 62-63). Fig. 3 shows that the image contains a bar code 23. Fig. 2 shows that the lenticular lens 11 and the image 12 are in overlay relationship with one another. Fig. 2 shows image strips 12, 13 and 15, which are also considered to be a bar code, diverges with the axial direction 14a at a common point, which is the bottom of the lenticules (or on the surface of image layer 12), and such common point defines a lenticular bar code angle, which is perpendicular. Clay further teaches that the bar code image is visible at all angles and permits machine readability by conventional means (col 4, lines 2-7).

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Re claim 2 and 3: The bar code angle is perpendicular (90 degrees) and therefore, 90 degrees is in a range from 0 to 360 degrees as well as 0 to 90 degrees.

Re claim 17: One lenticle overlays three strips 13, 14 and 15 as shown in Fig. 2.

Re claim 39 and 40: Since the bar code angle is perpendicular, the lenticles are not parallel to the bars, and is normal to the bars.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clay in view of Bravenec et al (US 6,073,854).

Clay fails to teach that the bars are skewed with respect to the lenticles. Clay also fails to teach that the bars are not aligned with the lenticles.

Bravenec shows that the lenticles of a sheet of lenticular material may be at an angle to the longitudinal axis (col 2 lines 24-30, Fig 1C).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the teachings of Clay to the teachings of Bravenec and place a sheet of lenticular material having lenticles at an angle to the bars of the barcode symbol because a barcode symbol reader may misread the lenticles as one of the bars of the barcode symbol, and therefore the modification would avoid such misreading and errors.

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5. Claims 8, 9, 11, 31 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clay in view of Addy (US 6,386,448).

Clay teaches a lenticular layer 10 including a plurality of lenticules 11 on the front surface of the layer 10 as shown in Fig. 1. The plurality of lenticules are oriented along an axis represented by axis 14a in Fig. 2 because the lenticules are facing upwards. Fig. 1 and Fig. 2 shows that the back surface, which is opposite the front surface (the side where the lenticules are located), is attached to layer 12 that contains an image (col 2, lines 62-63). Fig. 3 shows that the image contains a bar code 23. Fig. 2 shows that the lenticular lens 11 and the image 12 are in overlay relationship with one another. Fig. 2 shows image strips 12, 13 and 15, which are also considered to be a bar code, diverges with the axial direction 14a at a common point, which is the bottom of the lenticules (or on the surface of image layer 12), and such common point defines a lenticular bar angle, which is perpendicular.

Clay fails to teach that the bar code is a Universal Product Code. Clay also fails to teach that a bar code reader is a scanner or a hand-held scanner.

Addy teaches a hand-held scanner that scans or reads a product identification code such as a Universal Product Code (UPC) (col 5 lines 26-35).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Addy to the teachings of Clay because UPC codes are standardized codes used amongst commercially sold products to quick identify the product and price information. Such modification expands the use of the lenticular bar code and provides greater benefit and profit through the wider use by consumers.

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6. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clay as applied to claim 1 and 7 above, and further in view of McGinty et al (US 6,010,970). The teachings of Clay have been discussed above.

Clay fail to teach that the bar code symbol has an ANSI readability grade of at least a C and the bar code symbol is one of a Code 39 symbology, an Interleaved 2 of 5 symbology, a Codabar symbology, a Code 128 symbology, a Code 93 symbology, and a Postnet symbology.

McGinty teaches a bar code readability grade of C using Code 39 symbology (col 3 lines 47-51).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of McGinty to the teachings of Clay in order to create a clearly defined, but precise, barcode symbol so that the barcode can contain details or information on the product to identify the product in a faster manner.

7. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clay as applied to claim 1 above, and further in view of McKee (U.S. Patent Application Publication 2002/0038917). The teachings of Clay have been discussed above.

Clay fails to teach that the lenticules of the lenticular lens have a width of less than about 0.006667 inches and that the lenticular lens includes at least 150 lenticules per inch (LPI).

McKee teaches 200 lenticules per inch, which calculates to a width of 0.005 inches for each lenticule (Page 1, Paragraph [0004], lines 4-8).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of McKee to the teachings of Clay in order to reduce the obtrusiveness by decreasing the width of the lenticules.

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8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clay as modified by McKee as applied to claim 12 above, and further in view of Fotland (US 4,935,335). The teachings of Clay as modified by McKee have been discussed above.

Clay and McKee fail to teach that the lenticules of the lenticular lens have a focal length and a gauge thickness and wherein the focal length is substantially equal to the gauge thickness.

Fotland teaches that the focal length of each lenticles should be equal to the thickness of the lenticular sheet (col 1, lines 30-35).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Fotland to the teachings of Clay as modified by McKee in order to provide a multiple imagining lenticular lens assembly to provide more information.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clay as modified by McKee and Fotland as applied to claim 13 above, and further in view of Sandor et al (US 5,330,799). The teachings of Clay as modified by McKee and Fotland have been discussed above.

Clay as modified by McKee and Fotland fail to teach that the gauge thickness is less than about 10 mils.

Sandor teaches that transparent base film has a thickness 10 mils (col 8, line 35).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Sandor to the teachings of Clay as modified by McKee and Fotland in order to have sufficient thickness to provide lenticules with clear image and size.

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10. Claims 18-21, 24, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clay as applied to claim 1 above, and further in view of Guest (WIPO 00/09319). The teachings of Clay have been discussed above.

Clay fail to teach that the image is printed directly to the flat back surface of the lenticular lens, the image printing method, the image is not printed onto the lenticular lens by a photographic printing process, the lens comprises plastic material, and the image is applied to at least one of package, a cup, a container, and a label.

Guest teaches a volumn-deifining items having lenticular lens technology to provide images on the produced items. Items may include containers, boxes, cups (Page 1, lines 6 and 15-18). The system includes a lenticular lens on one surface of the plastic film and a flat surface on the other (Page 1, lines 21-22). The flat surface is printed with an image (Page 2, line 8-9) and affixed on the surface of a volume-defining item, wherein the lenticular lens assembly serves as a label. Guest also teaches that the printing is done by a sheet fed offset (lithographic), web fed offset (lithographic), and wed fed roto-gravure (Page 2, lines 4-5).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Guest to the teachings of Clay in order to provide a means for producing an attractive, aesthetic display with enhanced marketing and advertising appeal.

11. Claims 25-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clay as applied to claim 1 above, and further in view of Gottfried et al (US 6,329,987). The teachings of Clay have been discussed above.

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Clay fails to teach that the lens comprises an ultraviolet curable resin and a plastic material selected from the group consisting of: polyester vinyl, polycarbonate, polyvinyl chloride, polyethylene telephthalate, and amorphous polyethylene terephthalate.

Gottfried teaches that the lens can be made of polyvinyl chloride, polyethylene telephthalate etc and can be printed with image printed with ink that can then be cured with ultraviolet light (col 12, lines 38-44 and lines 54-55).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Gottfried to the teachings of Clay in order to obtain an accurate information by providing a clear translucent material and ink that can be read by a machine, which obtains information in a fast and an accurate manner.

12. Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clay in view of Christy (US 6,119,943).

Clay teaches a lenticular layer 10 including a plurality of lenticules 11 on the front surface of the layer 10 as shown in Fig. 1. The plurality of lenticules are oriented along an axis represented by axis 14a in Fig. 2 because the lenticules are facing upwards. Fig. 1 and Fig. 2 shows that the back surface, which is opposite the front surface (the side where the lenticules are located), is attached to layer 12 that contains an image (col 2, lines 62-63). Fig. 3 shows that the image contains a bar code 23. Fig. 2 shows that the lenticular lens 11 and the image 12 are in overlay relationship with one another. Fig. 2 shows image strips 12, 13 and 15, which are also considered to be a bar code, diverges with the axial direction 14a at a common point, which is the bottom of the lenticules (or on the surface of image layer 12), and such common point defines a lenticular bar angle, which is perpendicular. Clay further teaches that the bar code

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image is visible at all angles and permits machine readability by conventional means (col 4, lines 2-7).

Clay fails to teach a Universal Product Code and lithographical printing.

Christy teaches that bar codes are produced by lithographic printing and teaches UPC bar code labels (col 1, lines 5-11; col 1, lines 18-22; and col 1, lines 28-31).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Christy to the teachings of Clay because UPC codes are standardized codes used amongst commercially sold products to quick identify the product and price information. Such modification expands the use of the lenticular bar code and provides greater benefit and profit through the wider use by consumers.

13. Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clay in view of Guest (WIPO 00/09319).

Clay teaches a lenticular layer 10 including a plurality of lenticules 11 on the front surface of the layer 10 as shown in Fig. 1. The plurality of lenticules are oriented along an axis represented by axis 14a in Fig. 2 because the lenticules are facing upwards. Fig. 1 and Fig. 2 shows that the back surface, which is opposite the front surface (the side where the lenticules are located), is attached to layer 12 that contains an image (col 2, lines 62-63). Fig. 3 shows that the image contains a bar code 23. Fig. 2 shows that the lenticular lens 11 and the image 12 are in overlay relationship with one another. Fig. 2 shows image strips 12, 13 and 15, which are also considered to be a bar code, diverges with the axial direction 14a at a common point, which is the bottom of the lenticules (or on the surface of image layer 12), and such common point defines a lenticular bar angle, which is perpendicular.

Clay fails to teach a label substrate, a container substrate.

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Guest teaches a volumn-deifining items having lenticular lens technology to provide images on the produced items. Items may include containers, boxes, cups (Page 1, lines 6 and 15-18). The system includes a lenticular lens on one surface of the plastic film and a flat surface on the other (Page 1, lines 21-22). The flat surface is printed with an image (Page 2, line 8-9) and affixed on the surface of a volume-defining item, wherein the lenticular lens assembly serves as a label. Guest also teaches that the printing is done by a sheet fed offset (lithographic), web fed offset (lithographic), and wed fed roto-gravure (Page 2, lines 4-5).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Guest to the teachings of Clay in order to provide a means for producing an attractive, aesthetic display with enhanced marketing and advertising appeal.

14. Claims 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clay as applied to claim 1 above, and further in view of Lo et al (US 3,895,867). The teachings of Clay have been discussed above.

Clay fails to teach that the lenticular bar code image minimizes distortion of the bar code symbol as the bar code symbol appears through the lenticules and facilitates non-distortion.

Lo discloses that the composing lenticular screen could be deisgned to leave a very small viewing angle. The rocking angle will therefore be small, thus minimizing the distortion of the enlarged image.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Lo to the teachings of Clay in order to have a clear and distinct view of the bar code so that the bar code scanner as well as a human eye can clearly capture the image of the barcode. Such modification ensures that the scanner or bar code

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reader reads the correct bar code signal, so that it can further retrieve the correct data describing the object.

Response to Arguments

15. Applicant's arguments with respect to claims 1-46 have been considered but are moot in view of the new ground(s) of rejection.

The Examiner has provided new grounds of rejection providing a new interpretation of the claims. Therefore, arguments are moot.

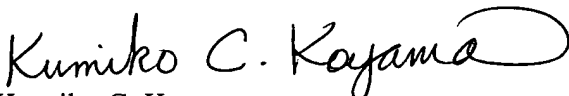
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kumiko C. Koyama whose telephone number is 571-272-2394. The examiner can normally be reached on Monday-Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kumiko C. Koyama
March 07, 2005


DIANE I. LEE
PRIMARY EXAMINER